



IDENTIFYING DATA

Introduction to quantum simulation

Subject	Introduction to quantum simulation			
Code	V05M198V01209			
Study programme	(*)Máster Universitario en Ciencia e tecnoloxías de información cuántica			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language				
Department				
Coordinator				
Lecturers				
E-mail				
Web				
General description				

Training and Learning Results

Code	
A3	Understanding and knowledge of the fundamentals of Quantum Information Theory, as well as two basic aspects of two four types of quantum technologies: computing, communications, metrology, simulation.
A8	Know the classical computing algorithms and strategies inspired by quantum computing: tensor networks, product states of matrices, etc.
B4	To have knowledge of quantum computing, algorithms, circuits, its programming in different languages and accessible platforms.
B14	To have knowledge of sets of problems in which quantum computing at its current stage of development can offer an advantage over classical computing: chemistry, biology, optimization, logistics, finance, etc.
C1	To analyze and break down a complex concept, examine each part and see how they fit together
C2	To classify and identify types or groups, showing how each category is different from the others
C3	To compare and contrast and point out similarities and differences between two or more topics or concepts

Expected results from this subject

Expected results from this subject	Training and Learning Results
New	A14
	A14
	A3
	A14
	A8
	B18
	B4
	B18
	B18
	B18
	B14
	C1
	C2
	C3

Contents

Topic

Planning

Class hours

Hours outside the classroom

Total hours

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

Description

Personalized assistance

Assessment

Description

Qualification

Training and Learning Results

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations
